

FIG.1

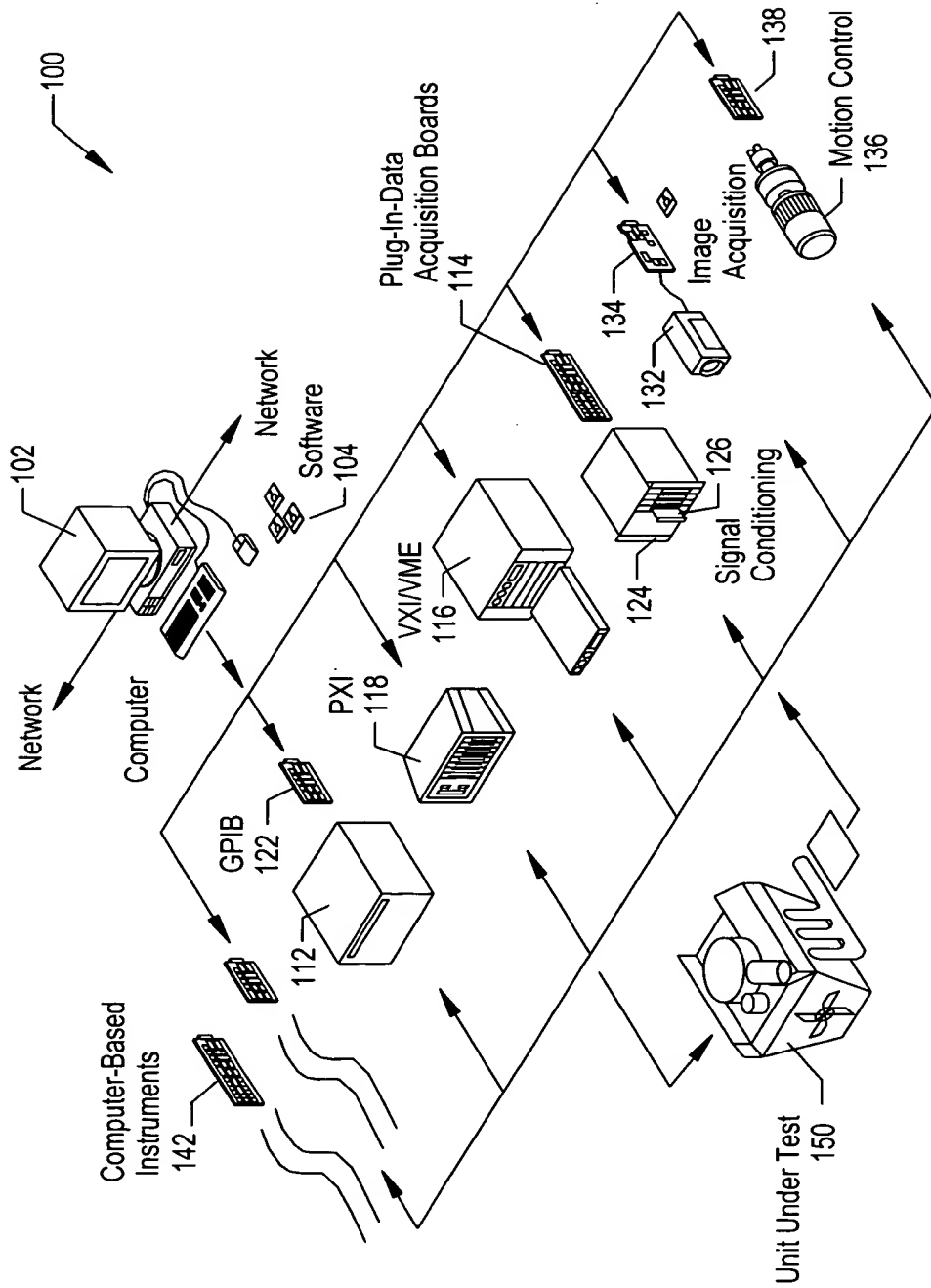


FIG. 2A

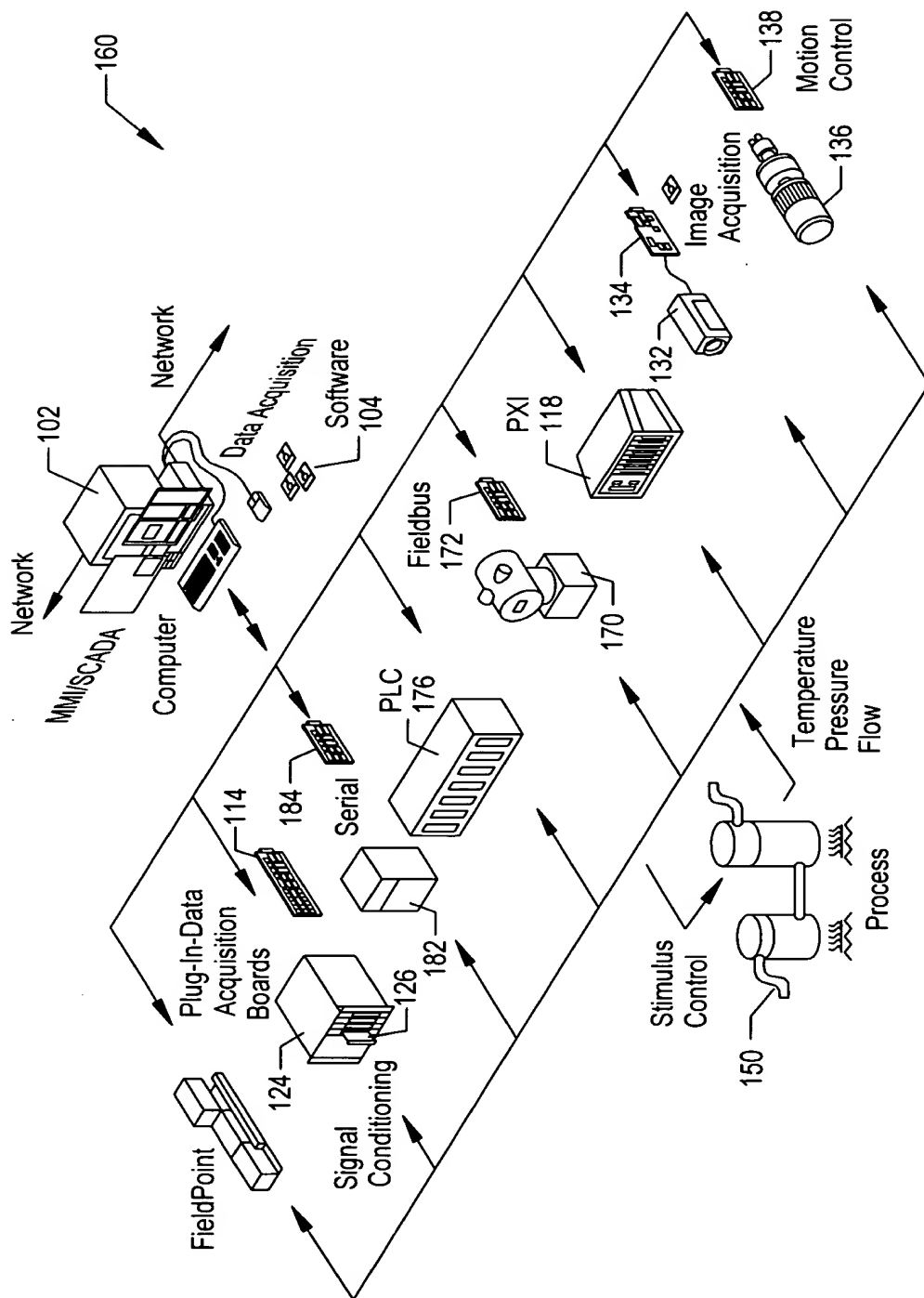


FIG. 2B

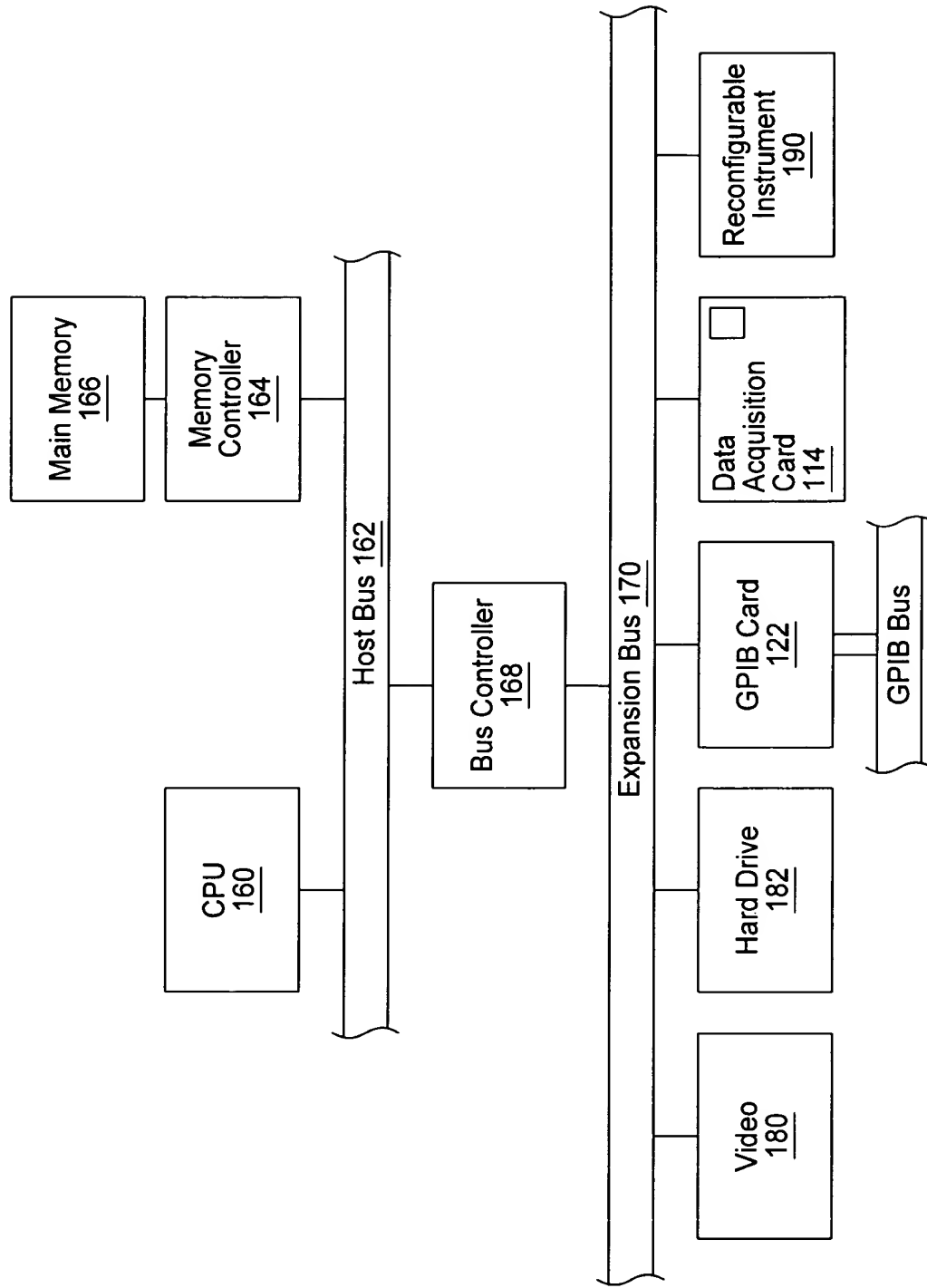


FIG. 3

Developer creates a graphical program generation (GPG) program, wherein the GPG program is operable to generate a plurality of graphical programs, based on received information

200

Specify program information, e.g., in response to user input, wherein the program information specifies desired functionality to be implemented in a graphical program

204

execute graphical program generation (GPG) program

206

GPG program receives information specifying functionality for a graphical program (or graphical program portion)

208

GPG program programmatically generates a graphical program (or graphical program portion) to implement the specified functionality

210

FIG. 4

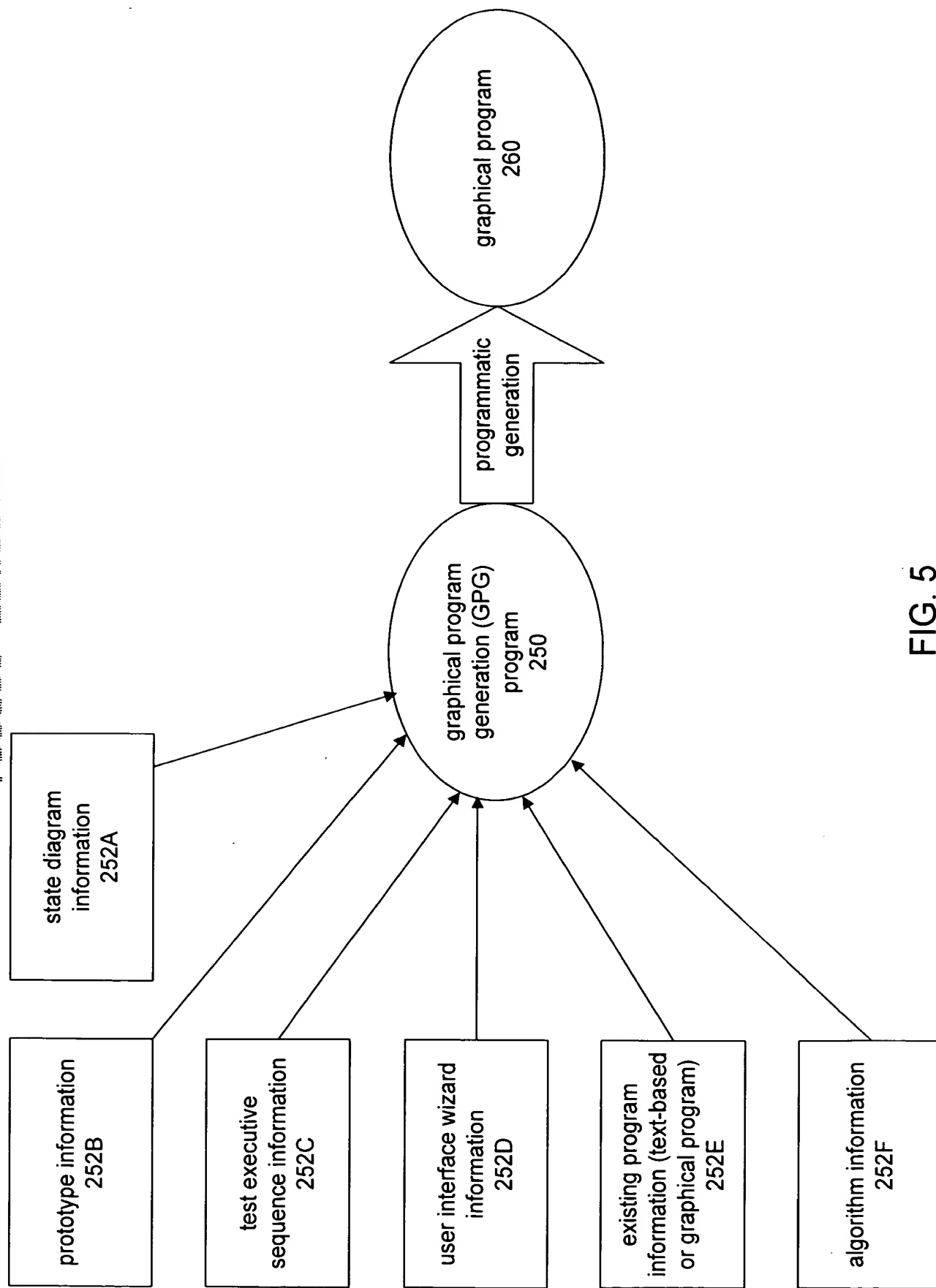


FIG. 5

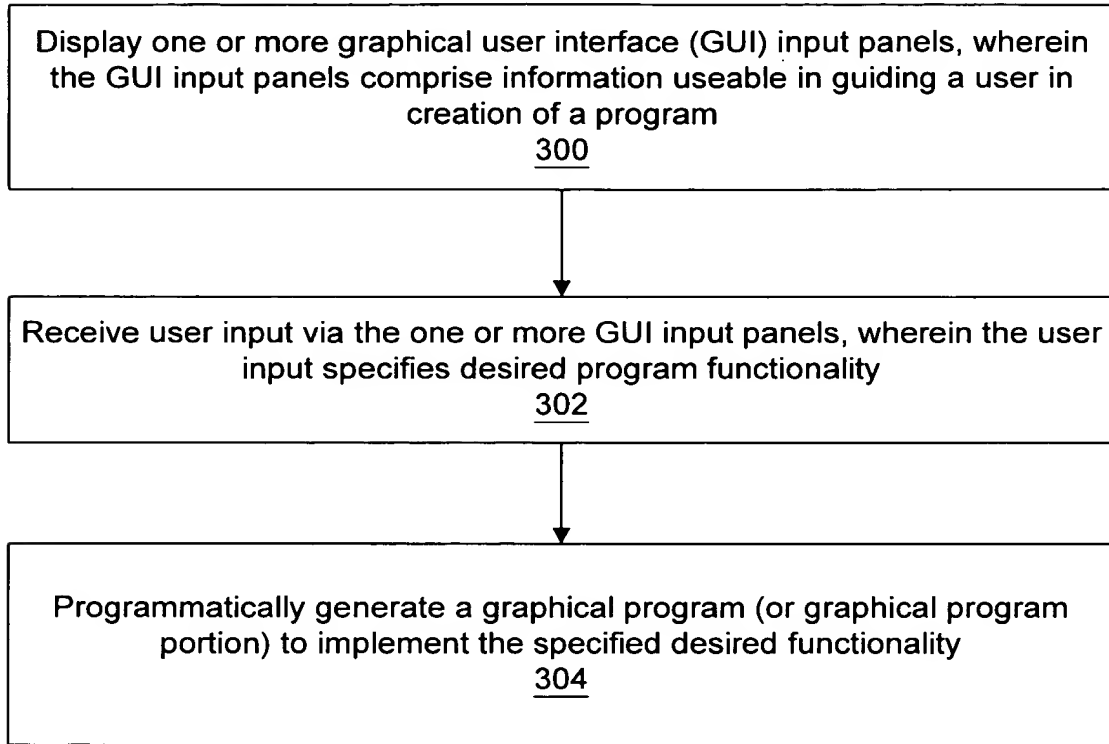


FIG. 6

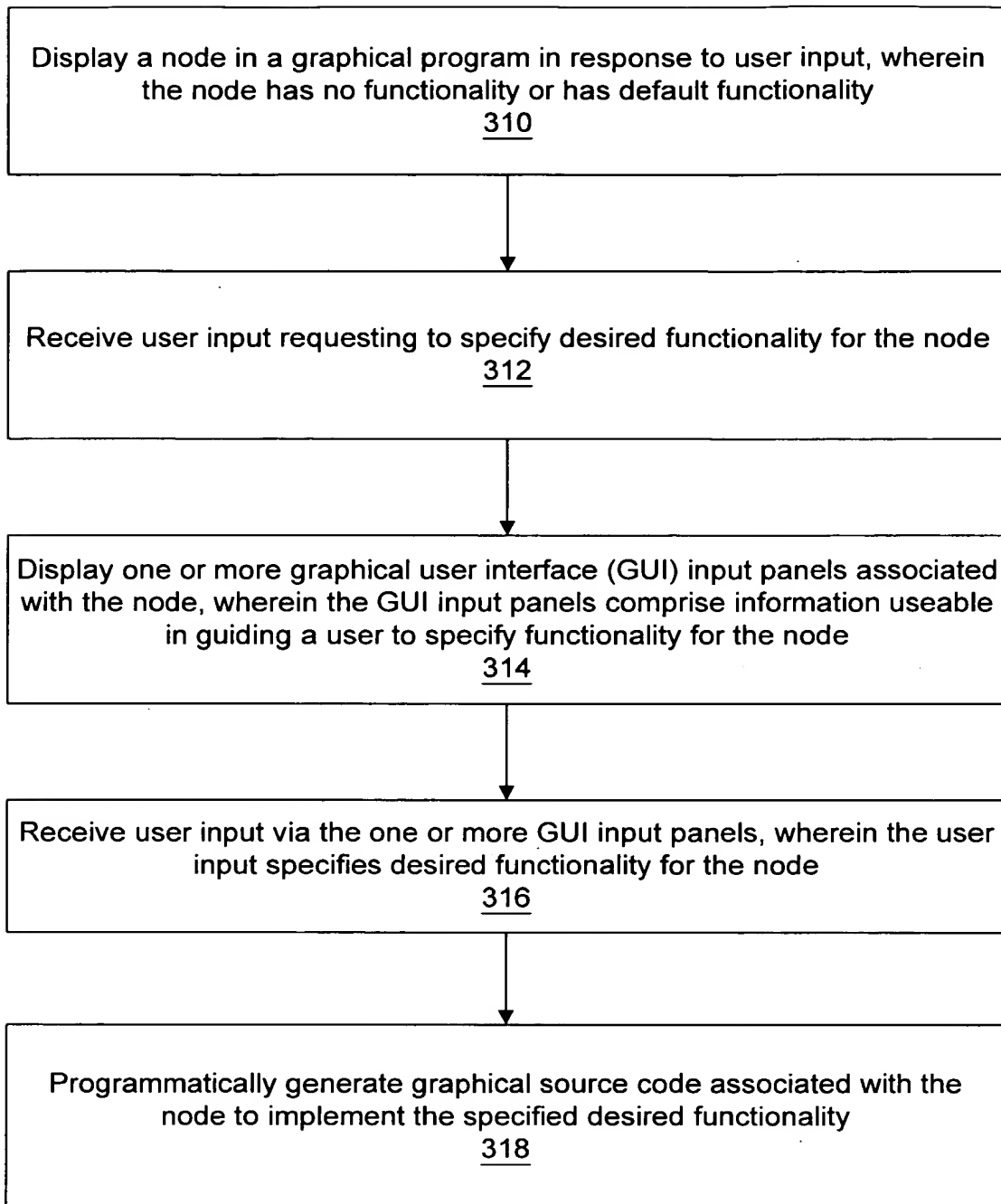


FIG. 7



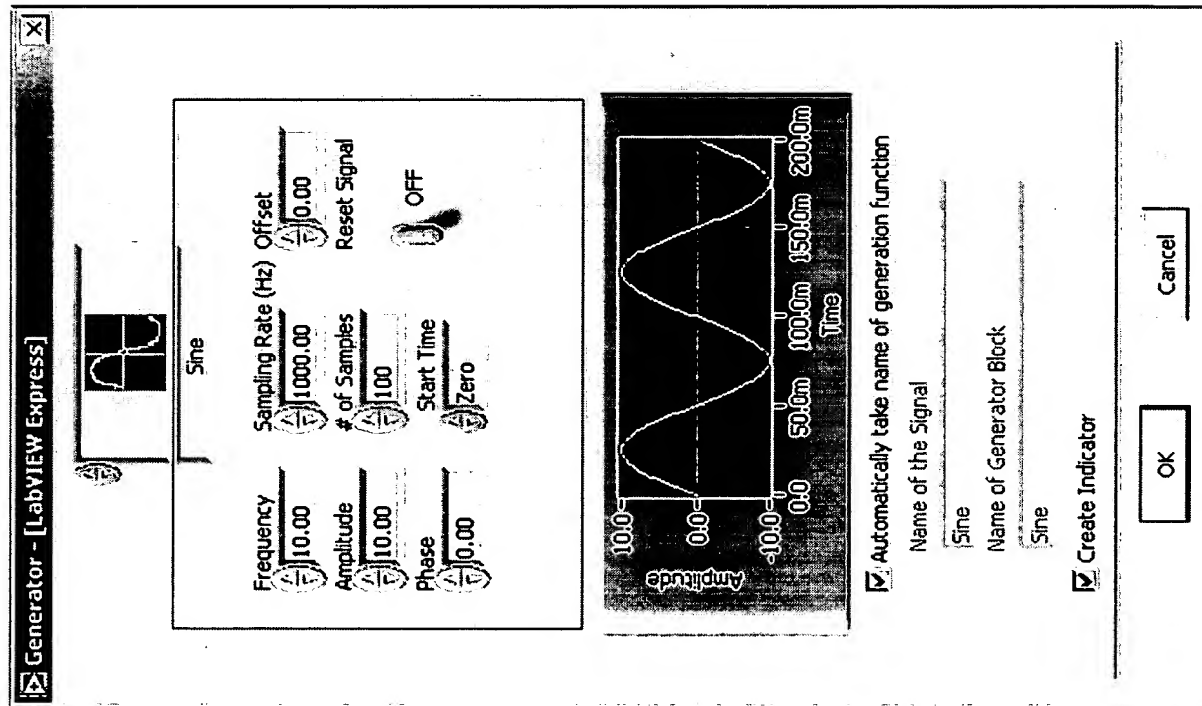


FIG. 8

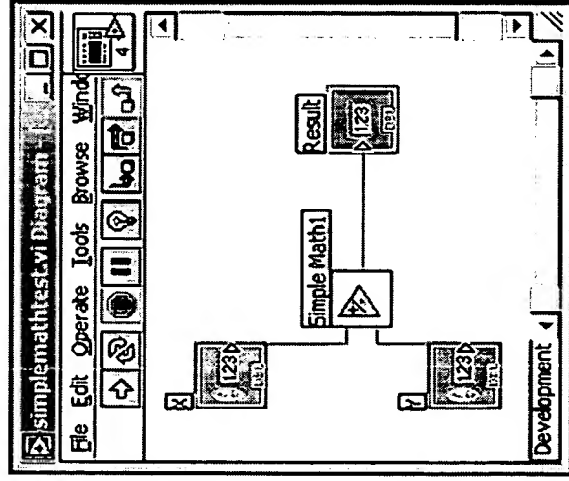


FIG. 9

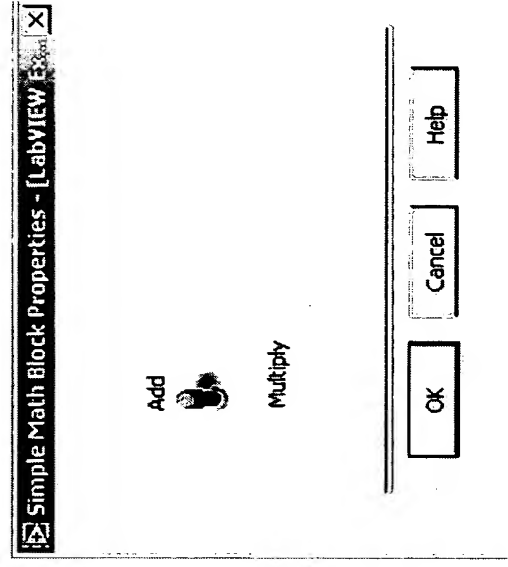


FIG. 10

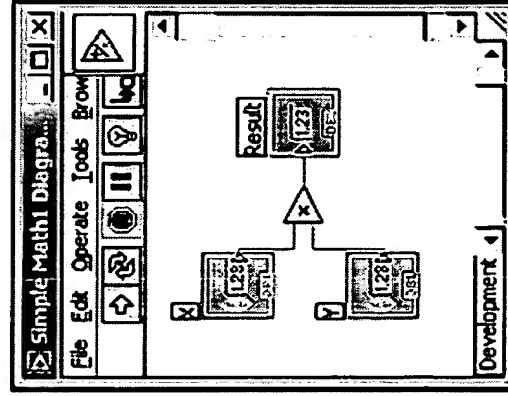


FIG. 11

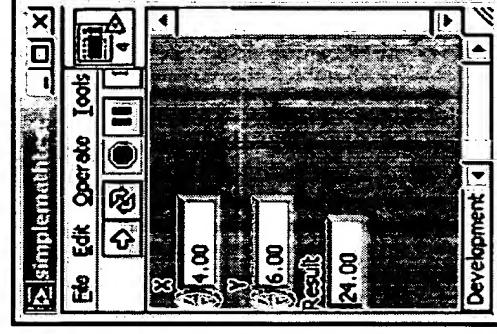


FIG. 12

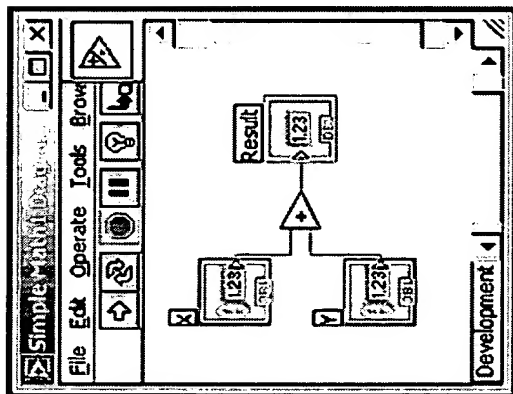


FIG. 13

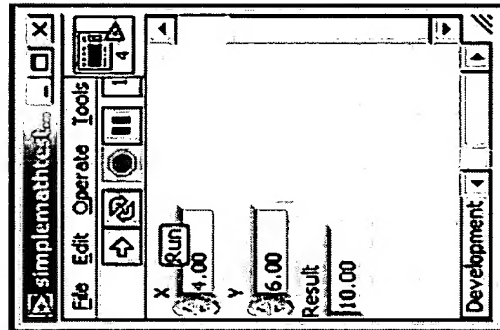


FIG. 14

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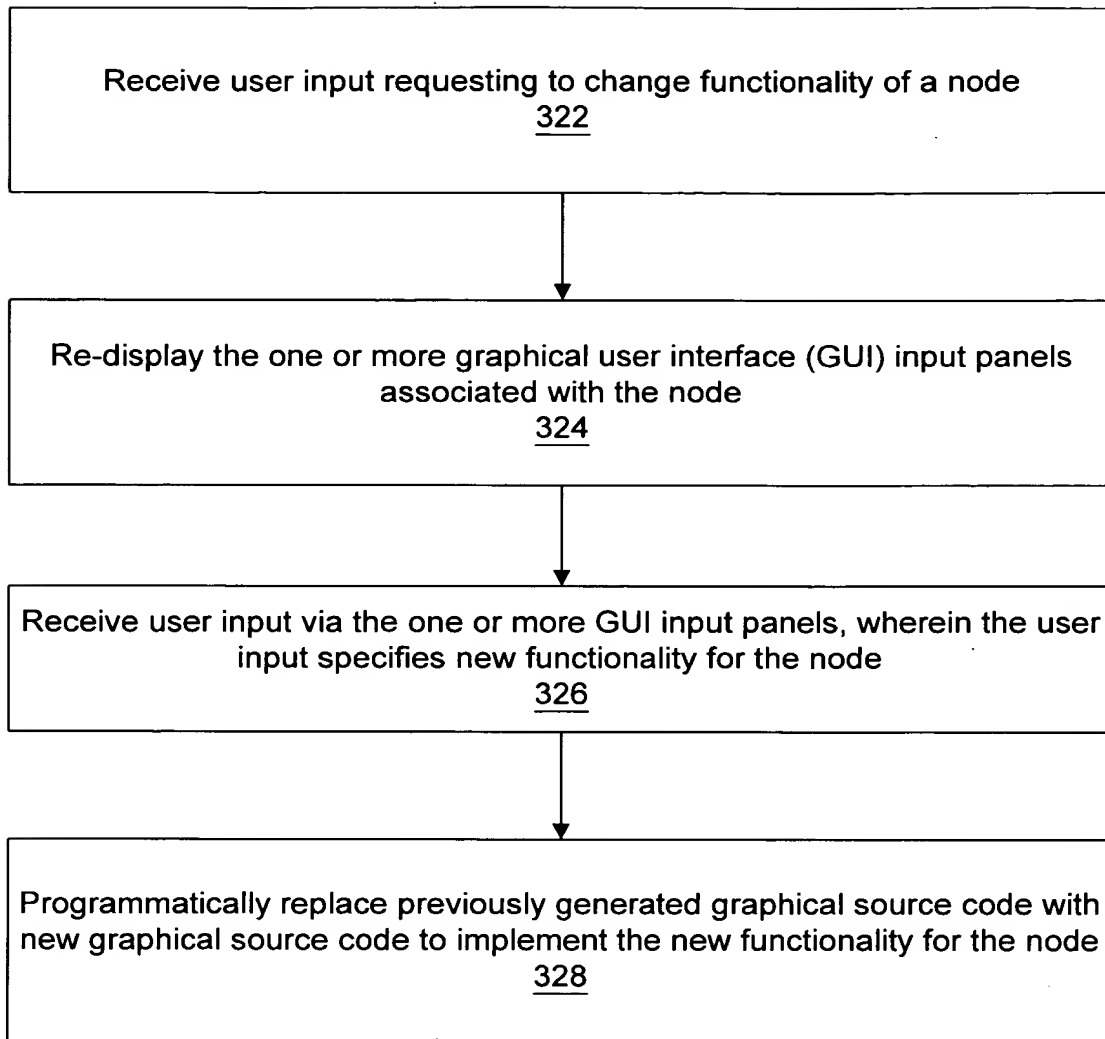


FIG. 15

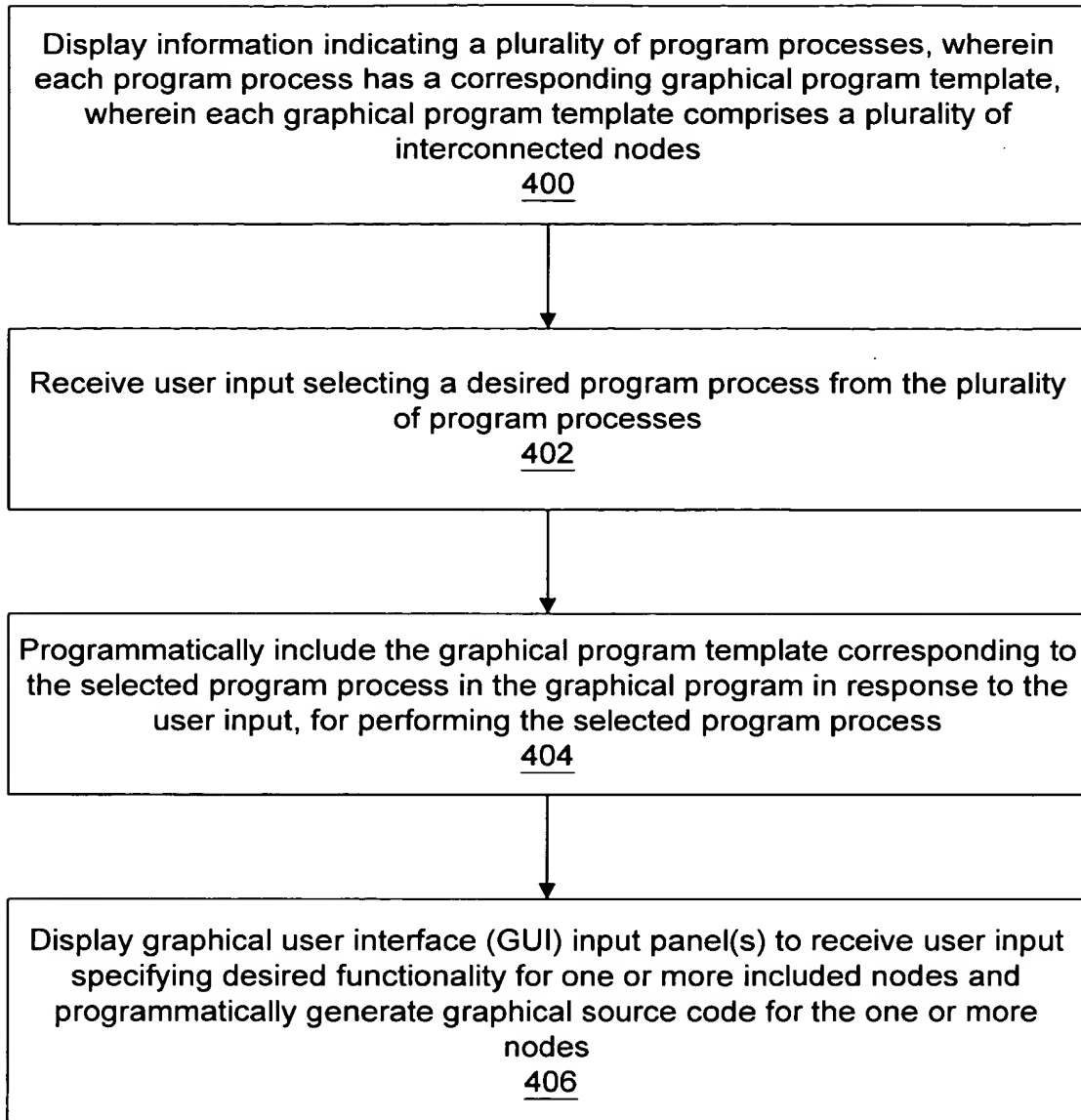


FIG. 16

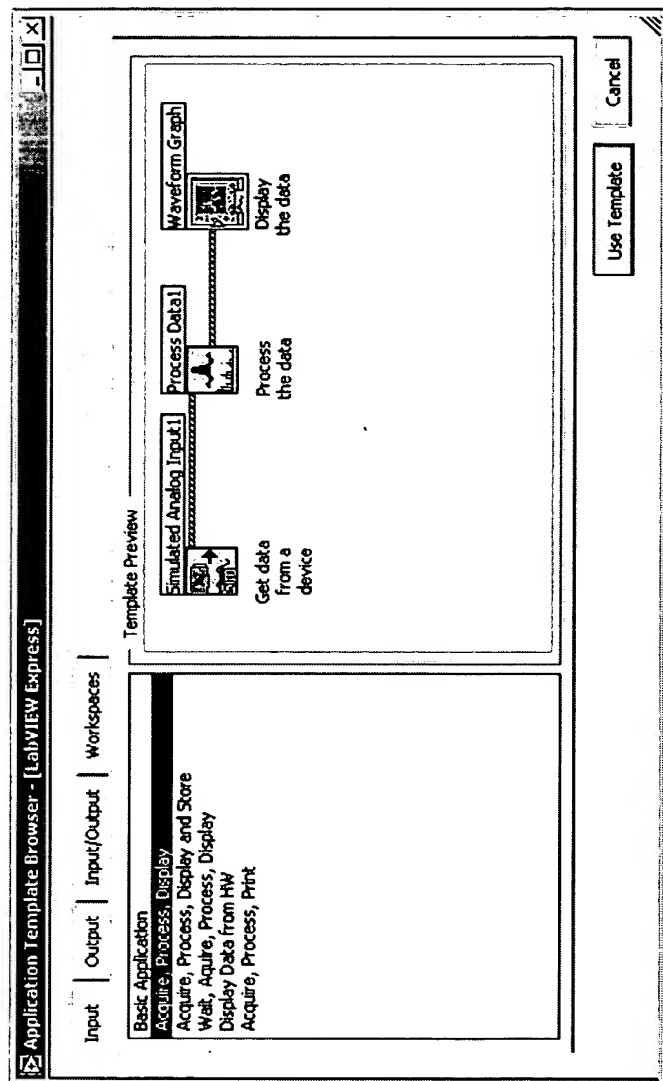


FIG. 17

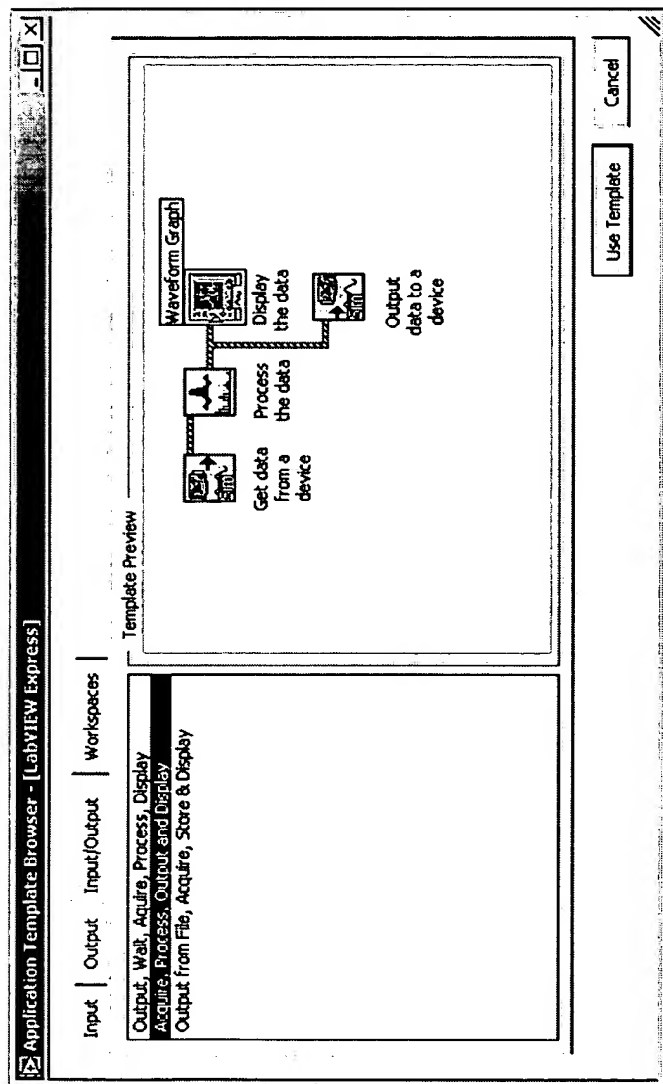


FIG. 18

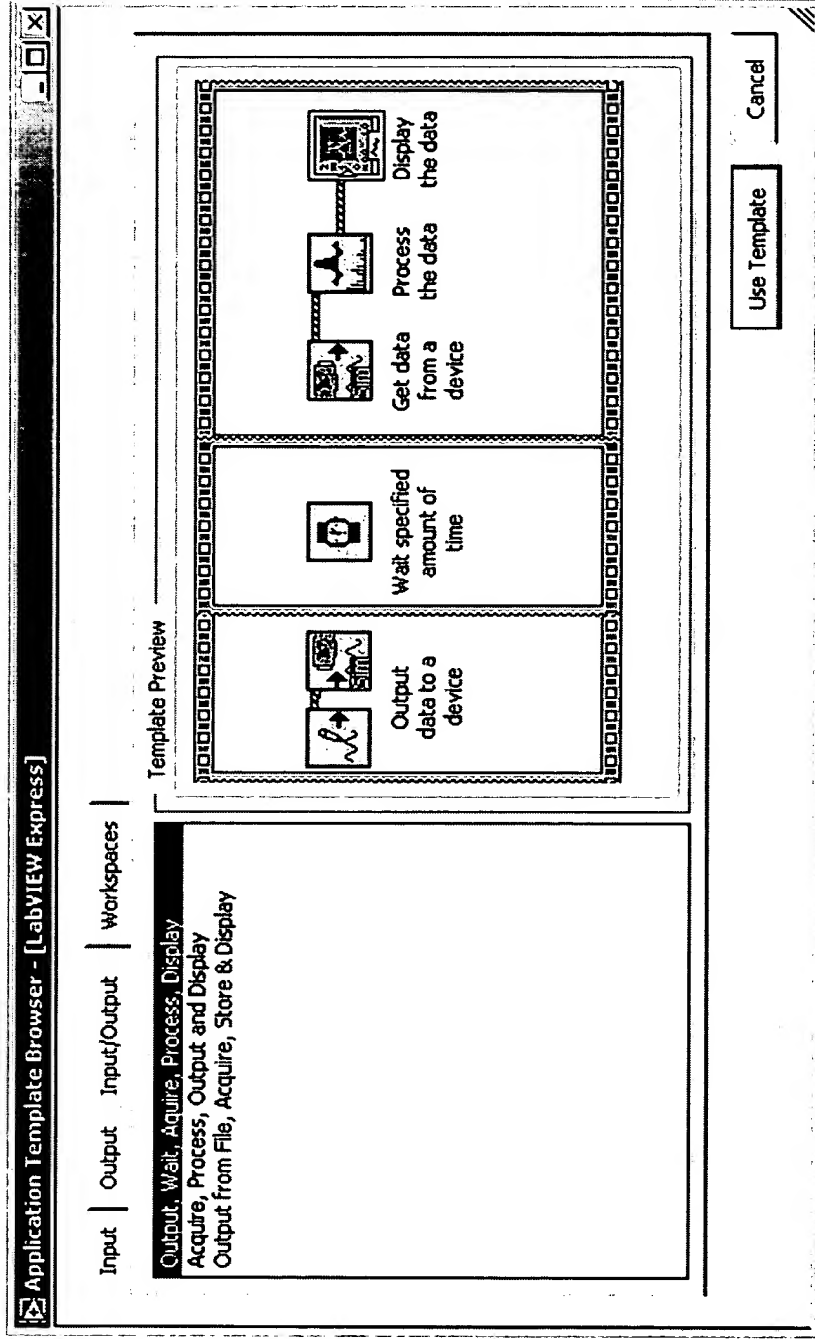


FIG. 19



The top screenshot displays the 'Waveform Graph' window in LabVIEW. The graph shows a plot of Amplitude (Y-axis, ranging from -10.0 to 10.0) versus Time (X-axis, ranging from 0.0 to 100.0). The plot area is currently blank, showing only the axes and grid lines. The window title is 'New Application [tmp001.vi] - [LabVIEW Express]'. The menu bar includes File, Edit, Operate, Tools, Browse, Window, and Help. The toolbar contains various icons for file operations and graph settings. The 'Plot 0' tab is selected, showing a waveform icon.

The bottom screenshot displays the 'Diagram' window in LabVIEW. The diagram shows a flow from 'Simulated Analog Input1' to 'Process Data1' to 'Waveform Graph'. Below each block, there is a descriptive text: 'Get data from a device' for the input, 'Process the data' for the process, and 'Display the data' for the graph. The window title is 'New Application [tmp001.vi] Diagram - [LabVIEW Express]'. The menu bar includes File, Edit, Operate, Tools, Browse, Window, and Help. The toolbar contains various icons for file operations and graph settings. The 'Development' tab is selected.

FIG. 20

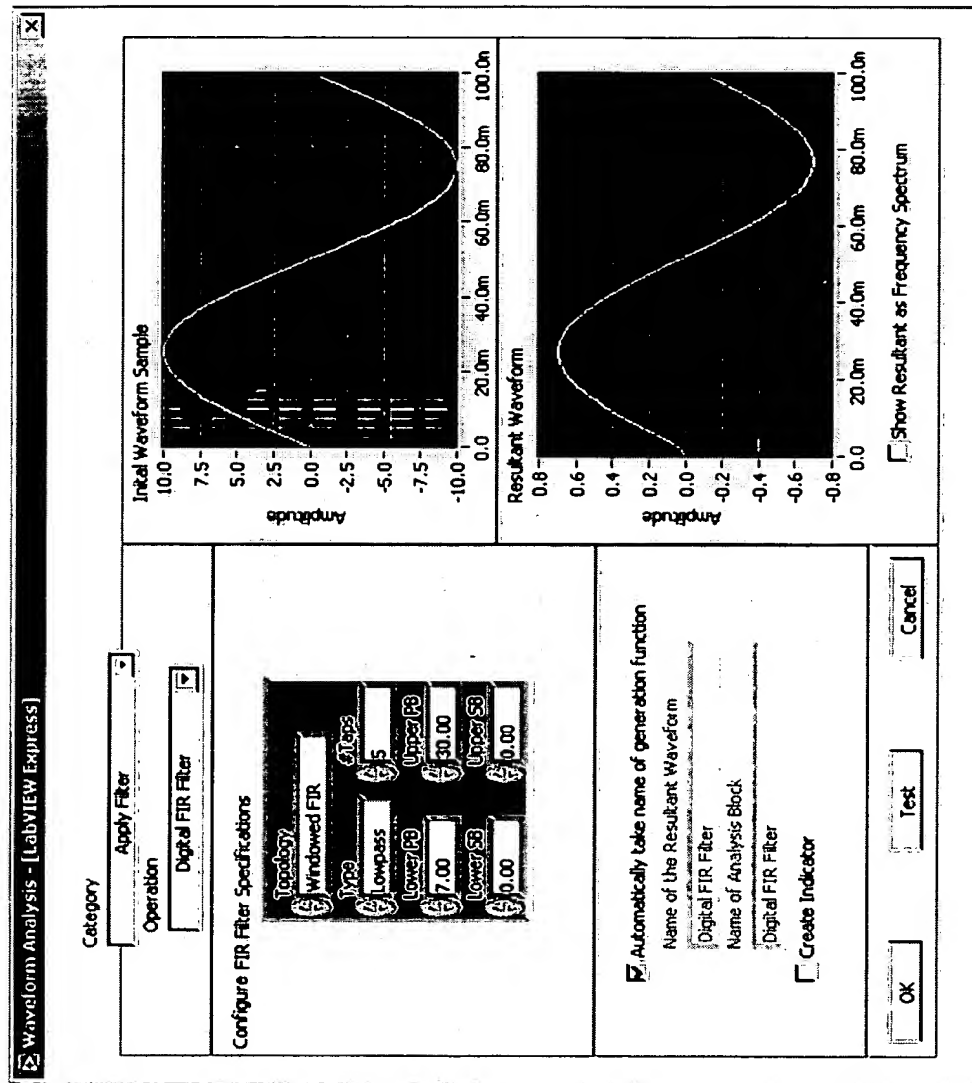


FIG. 21

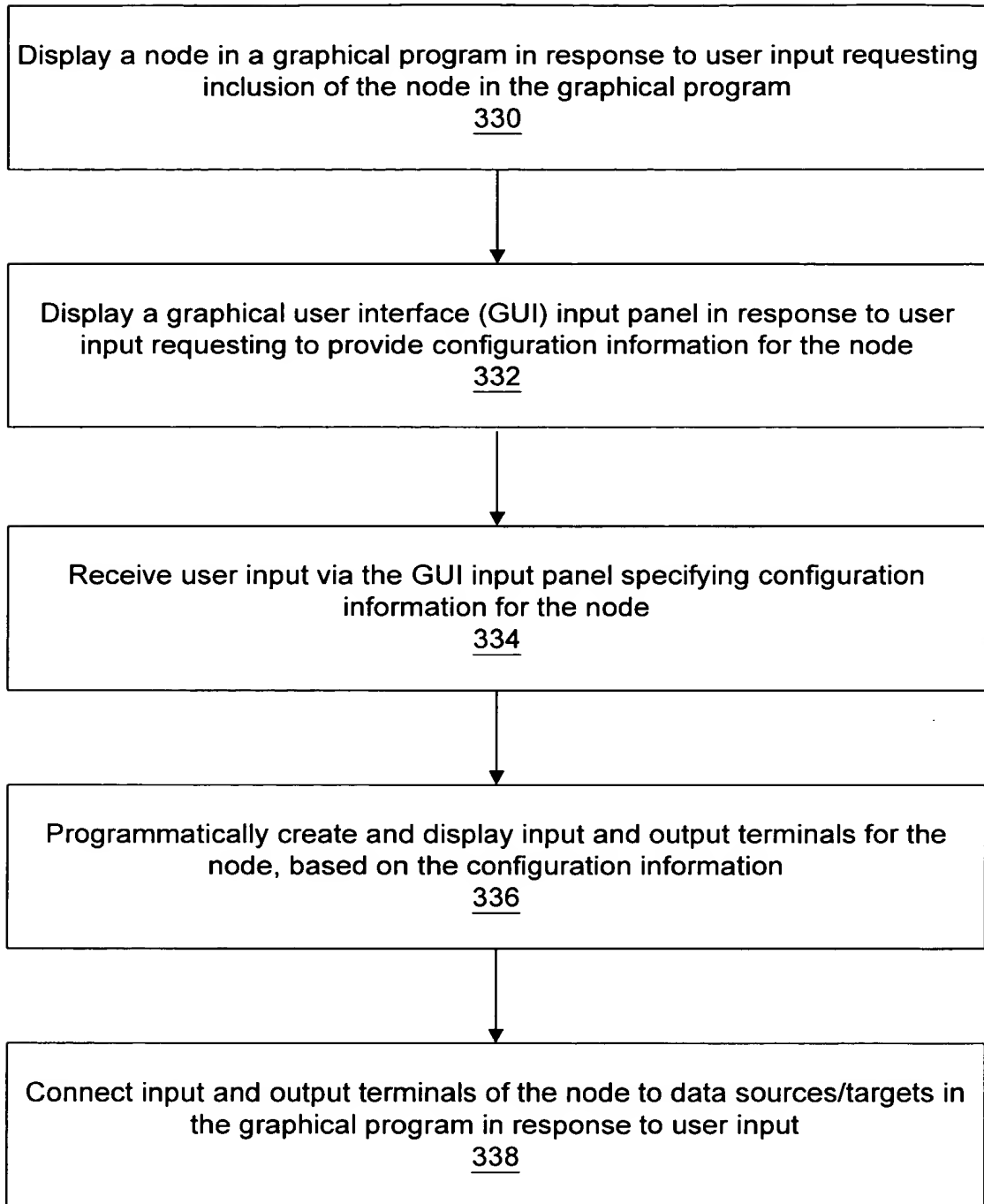


FIG. 22

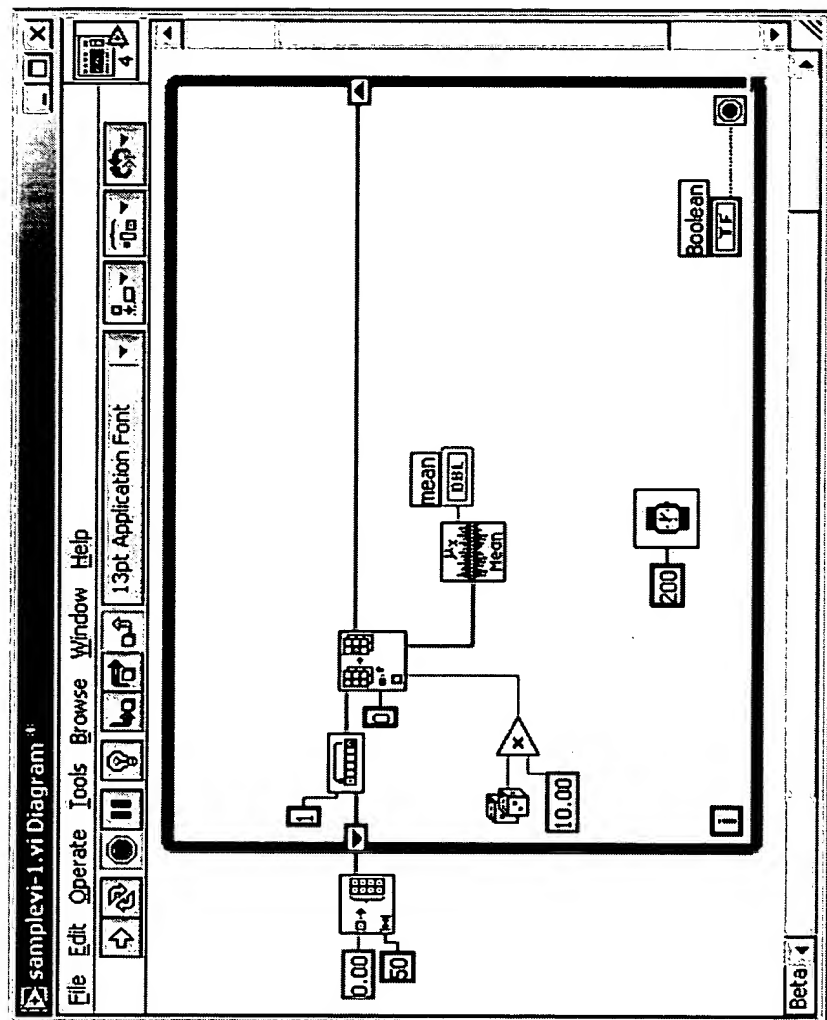


FIG. 23  
(PRIOR ART)

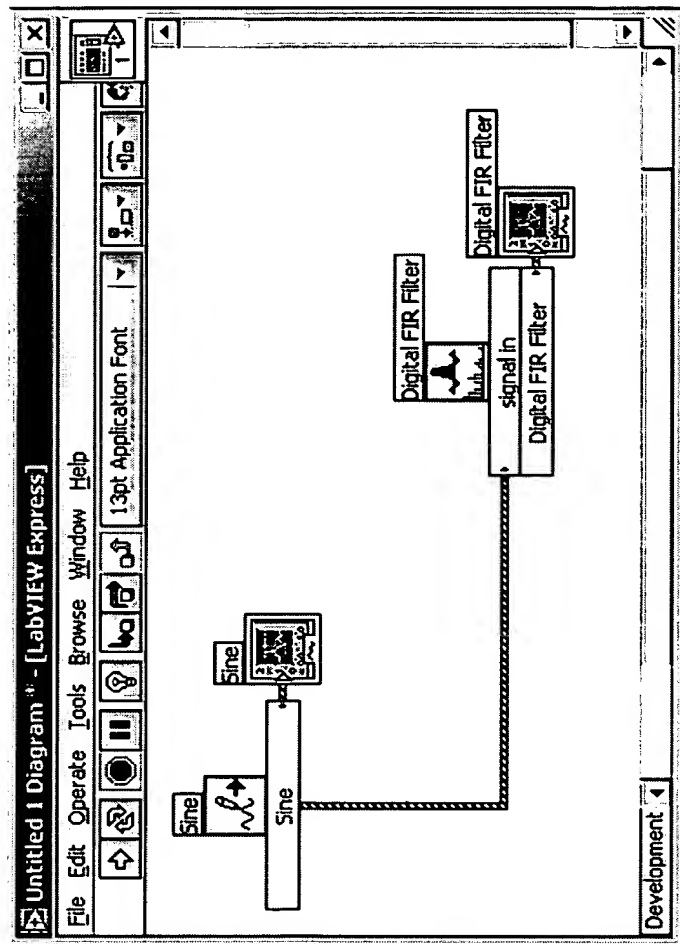


FIG. 24

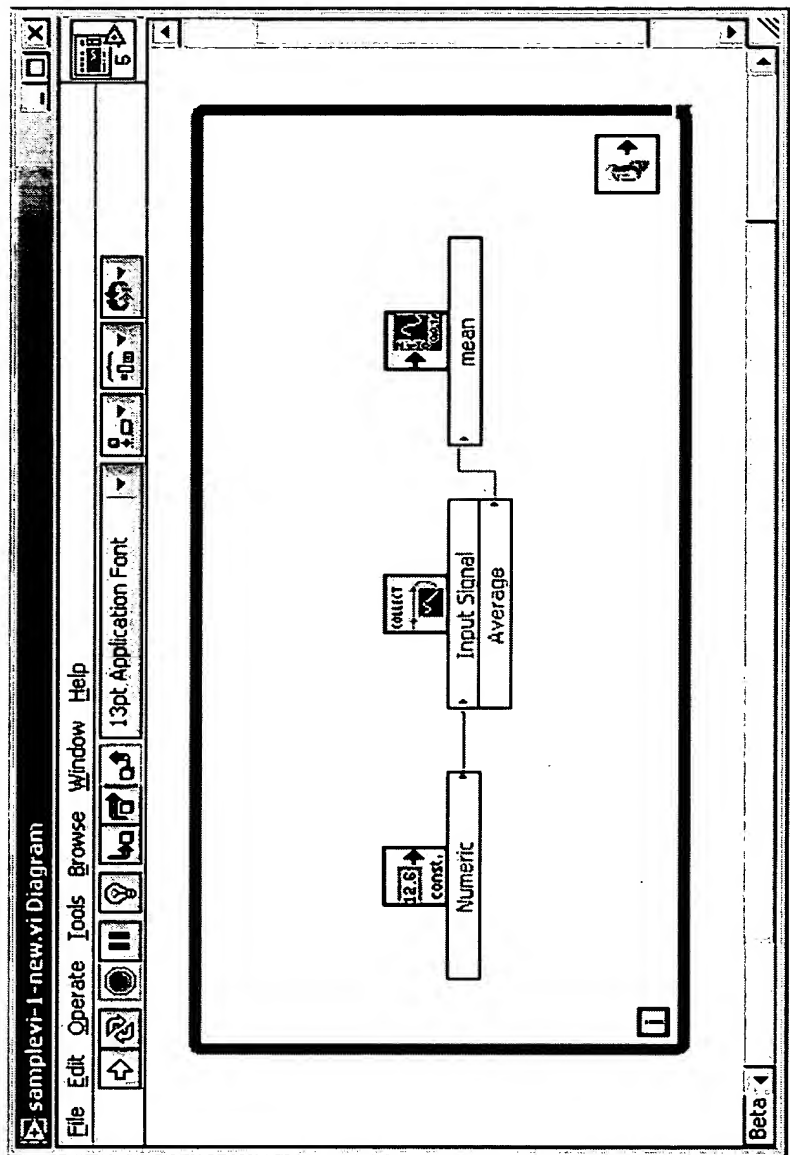


FIG. 25

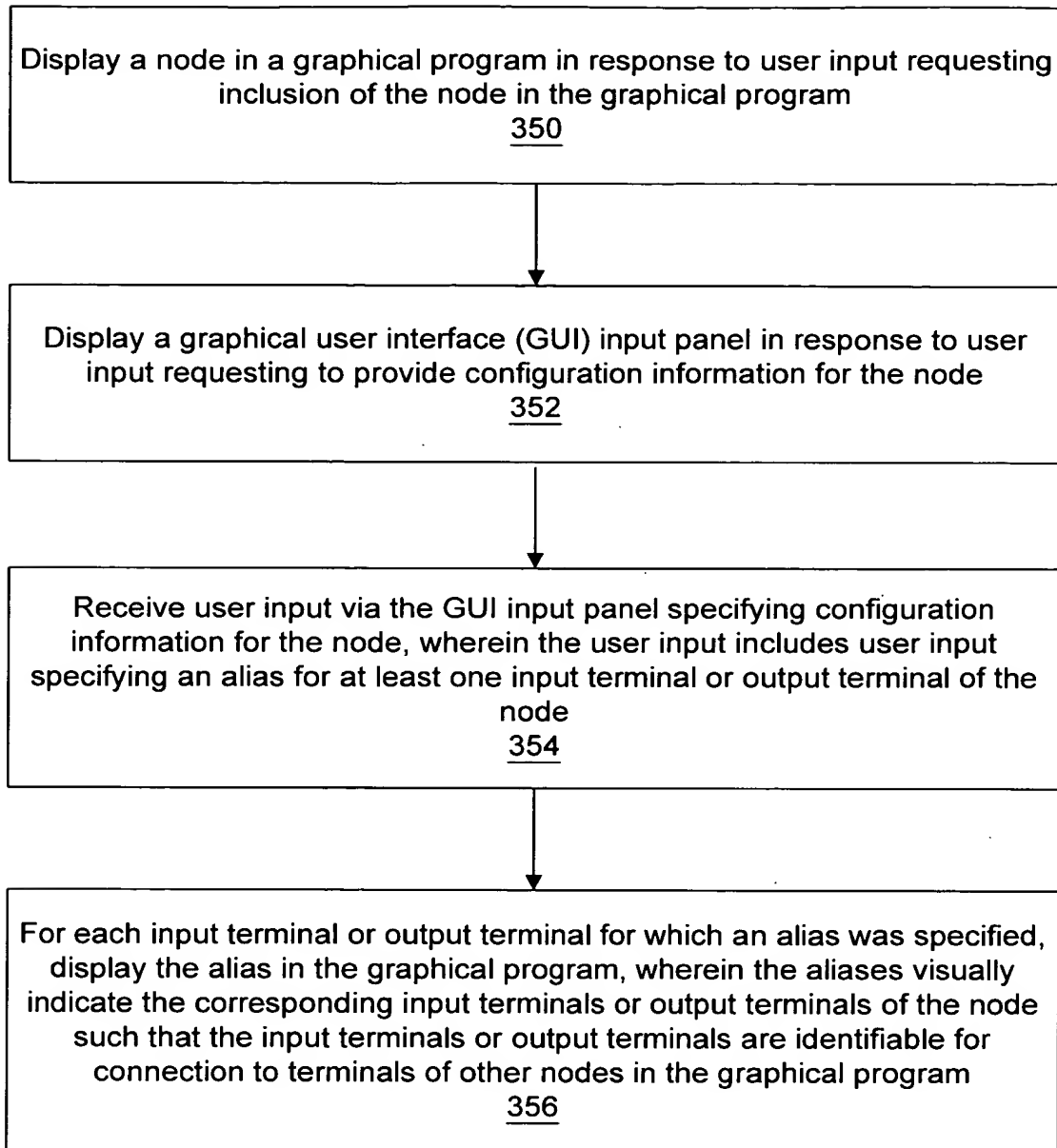


FIG. 26

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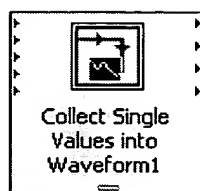


FIG. 27



Collector Properties [Debug] C:\vme\lvr.exe [Debug] X

**Collector**

Collection Mode  
Sliding Block

Size Of Collection  
100

☒ Automatically take name of collector function

Name of the Collection  
Sliding Block

Name of Collector Block  
Sliding Block

☐ Create Indicator

OK Cancel Help

FIG. 28

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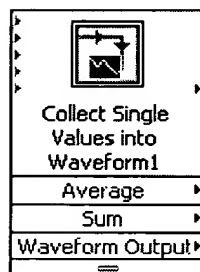


FIG. 29



FIG. 30

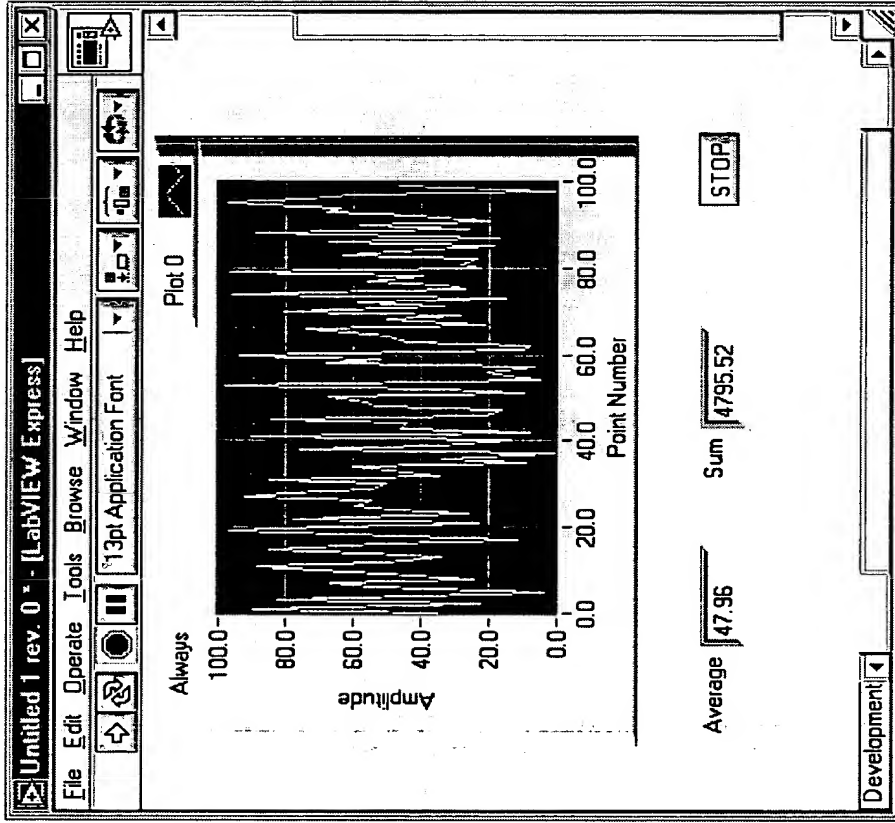


FIG. 31

FIG. 32

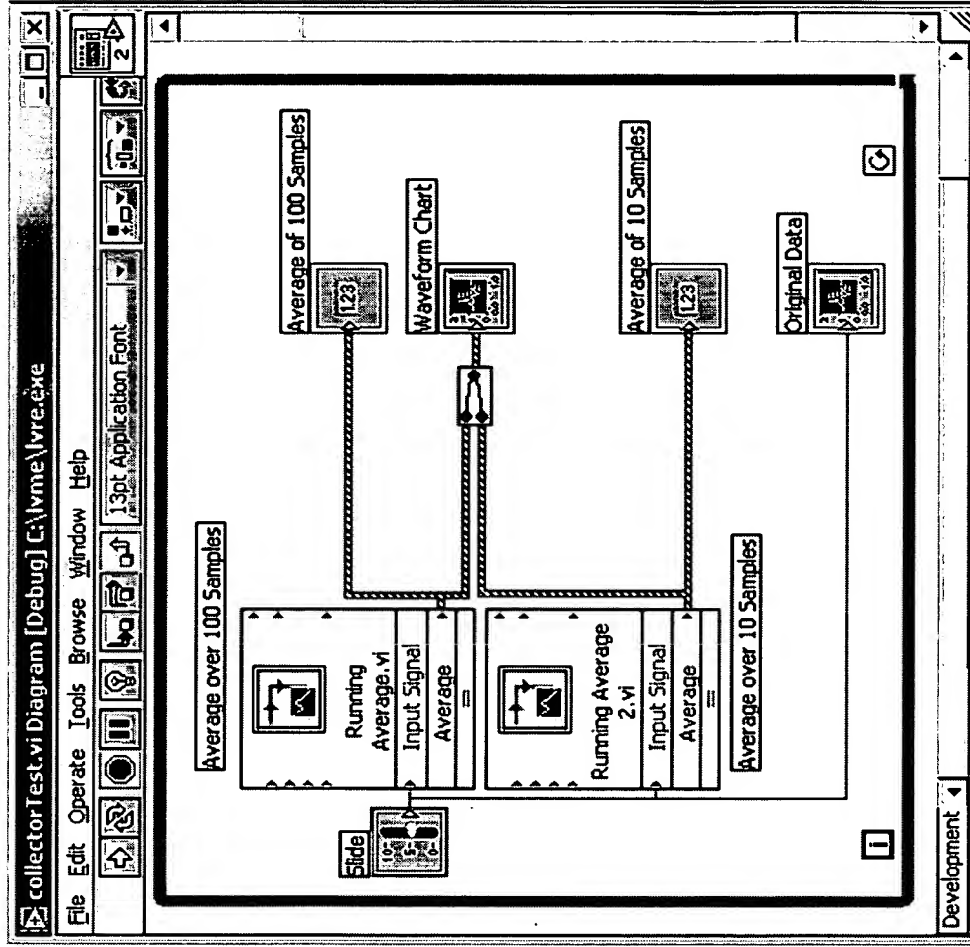


FIG. 32

collectorTest.vi [Debug] C:\lvme\lvre.exe

File Edit Operate Tools Browse Window Help

13pt Application Font

Slide

Original Data

Plot 0

Amplitude

Time

Waveform Chart

Avg of 100 Samples

Avg of 10 Samples

Amplitude

Time

13:48:12.54 03/15/2001

13:48:17.54 03/15/2001

Average of 100 Samples

3.69

Average of 10 Samples

3.05

Development

The screenshot displays the LabVIEW front panel for a program named 'collectorTest.vi'. The interface includes a standard menu bar (File, Edit, Operate, Tools, Browse, Window, Help) and a toolbar with various icons. A 'Slide' control is visible on the left. The main display area contains two waveform plots. The top plot, titled 'Original Data', shows a signal with two peaks, with the y-axis labeled 'Amplitude' ranging from 0.0 to 10.0 and the x-axis labeled 'Time' ranging from 250 to 300. The bottom plot, titled 'Waveform Chart', contains two sub-plots: 'Avg of 100 Samples' and 'Avg of 10 Samples'. The 'Avg of 100 Samples' plot shows a relatively flat line around an amplitude of 5.0. The 'Avg of 10 Samples' plot shows a signal with two peaks, similar to the 'Original Data' plot, with the y-axis labeled 'Amplitude' ranging from 0.0 to 10.0 and the x-axis labeled 'Time' ranging from 13:48:12.54 to 13:48:17.54 on 03/15/2001. Below the plots, there are two numerical indicators: 'Average of 100 Samples' with a value of 3.69, and 'Average of 10 Samples' with a value of 3.05. The bottom status bar shows 'Development'.

FIG. 33

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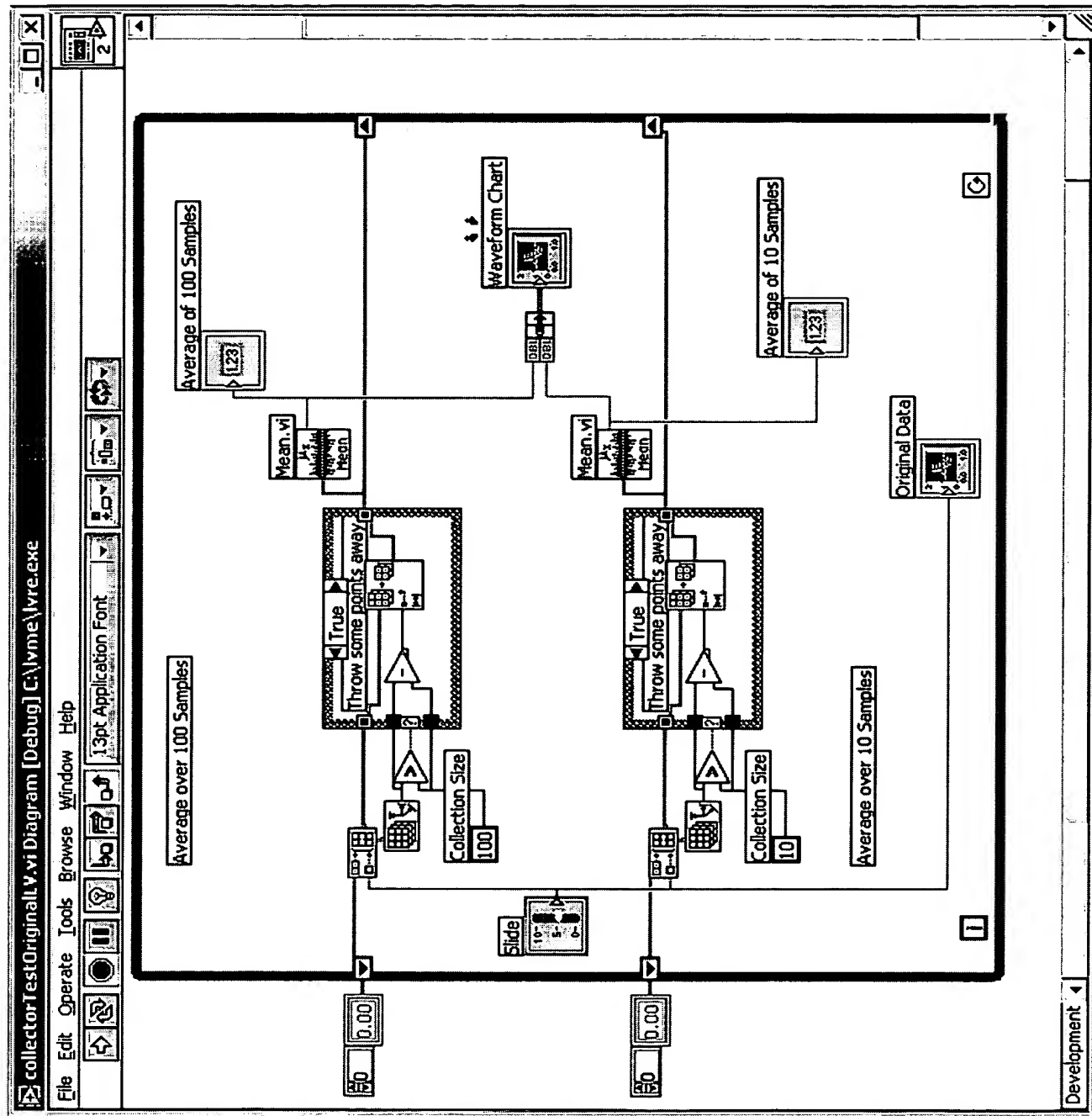


FIG. 34  
(PRIOR ART)